SureVent Guideline

The **SURE**VENT provides constant flow, pressure-cycled, ventilatory support powered by oxygen. The device is designed for the appropriate ventilatory management of an intubated patient when there is a minimum number of providers present on scene and the AIC is busy with other tasks. This device is authorized for use by all RSI-trained providers, and those who have completed the necessary objectives for release with this procedure.

Indications:

1. Patients in need of emergency, short term, constant flow, pressure-cycled ventilatory support.

Contraindications:

1. Patients requiring greater than 50 cm H20 or less than 20 cm H20.
2. Any patient where an LMA/King/Combitube is providing the definitive airway. An LMA can be used only when an ETT has been placed through the device and tracheal placement has been verified.

Set-up:

1. Remove the **SURE**VENT from its package and connect oxygen tubing to flow source.
2. Select desired Tidal Volume, I-time, and Flow
3. Set desired flow rate.
   Note: Perform a FUNCTIONAL CHECK by occluding the patient port with supply gas flowing and verify that the pressure DOES NOT EXCEED 54 cm-H20.
   Note: Typical required gas supply pressure is 45 to 55 PSI. Supply pressures from 39 to 80 PSI may be used if the flow is adjusted to 40 L/min + 10%. The **SURE**VENT will deliver 40L/min against a patient pressure of 20 to 40 cm-H20 when connected directly to a 50 PSI gas source.
4. Adjust Pressure dial to achieve desired peak pressure.
   Note: Indicated pressures are approximate and may vary depending on conditions and setting. Verify with a manometer.
5. Indicated peak pressure is printed on the pressure dial. Positive-end expiratory pressure (PEEP) is typically 1/10th of Positive inspiratory pressure (PIP).
6. Adjust Rate dial to achieve desired respiratory rate. **SURE**VENT may be set for spontaneous pressure support mode by adjusting rate dial clockwise until mandatory rate stops. To return to automatic cycling, rotate rate dial counterclockwise until desired rate is achieved.
7. Observe the rise and fall of the chest corresponding to inhalation and exhalation of the patient. Listen for expiratory flow from modulator. Listen to breath sounds of the patient.
8. If the patient vomits, disconnect patient adapter from modulator and remove the rate dial if necessary. Tap out vomitus on a hard surface to dislodge it, and then reassemble. Clear the patient's airway and reconnect. This clearing procedure should take less than 20 seconds. Check that inhalation and exhalation occur without obstruction.
9. The **SURE**VENT is pressure limited and is equipped with a redundant pressure pop-off valve which will activate at 60 cm-H20.
10. Changes in the patient's lung compliance will result in respiratory rate changes. In such an event, make the appropriate clinical changes.
11. If the patient draws air through the patient entrainment port, the oxygen concentration delivered to the patient may differ from the concentration at the gas inlet of the patient connector.

Precautions:

1. Patients connected to this device are to be monitored continuously by persons having adequate training. **Do not leave the patient unattended.**
2. This device may entrain outside air. This may be hazardous to patients in contaminated environments unless entrainment is prevented by occluding the patient demand valve.
3. When the patient airway is occluded, patient pressure will be limited and the **SURE**VENT will stop cycling.

4. If there is an equipment malfunction, switch immediately to another **SURE**VENT or begin BVM ventilations.
5. Adequate ventilation should always be checked by watching the movement of the chest, listening to the expiratory flow from the modulator, and using sound clinical judgment.
6. PEEP is intrinsic to this device. PEEP is usually 1/10th PIP and will range from 2 to 5 cm H20 depending on the pressure settings. Verify actual PEEP with a manometer.
7. The **SURE**VENT operates for 30 minutes (+ 10%) on a cylinder volume of 625 liters.
8. Do not use with oil or petroleum-based products.